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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/048,082      | 01/24/2002  | Faiz Feisal Sherman  | 7691                | 1652             |

27752 7590 02/10/2004

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EXAMINER

FOX, JOHN C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3753

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/048,082

Applicant(s)

SHERMAN ET AL.

Examiner

John Fox

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 2-10, 19 and 25-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 11-18 and 20-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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This action is responsive to the communication filed January 13, 2004.

Claims 26-29 are withdrawn from further consideration by the examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected inventions, the requirement having been traversed in Paper No. 5.

Claims 2-10, 19 and 25 are withdrawn from further consideration by the examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected species, the requirement having been traversed in Paper No. 5. Although applicant listed claims 2-5 and 25 as reading on the elected species, the biasing means are disclosed as alternative embodiments to what is shown in the elected Figures 16-17. Although applicant listed claims 8-10 as reading on the elected species, these claims depend from nonelected claim 6 and cannot so read.

Responsive to applicant's remarks, appropriate rejoinder will be considered upon the determination of allowable subject matter.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 1, 15-18 and 21-24 are rejected under 35 U.S.C. § 103 as being unpatentable over Gschwendtner et al (US 5,400,824, of record) in view of Schumm, Jr. (US 5,837,394, of record). Gschwendtner et al teach a microvalve having a fixed body 21 with openings 24, a shutter 11 with openings 14, and electrostatic finger drives 31. Gschwendtner et al does not teach latching the valve. Schumm, Jr. shows another microvalve having plural openings on the fixed and movable members and teaches latching the slide in both the open and closed position, see Figure 8, column 7, line 66 to column 8, line 13, and claim 7. Figure 8 shows two cutouts in the movable element forming an "ear". It would have been obvious for one of ordinary skill in the art to have provided such a latch for the valve of Gschwendtner et al to similarly retain the valve in each of its positions. Claim 5 of Schumm, Jr. Claim 5 of Schumm, Jr. discloses that the actuators are powered to move and then the power is removed, suggesting the latches hold the valve in position. Moving the latches out of engagement prior to actuating the valve is considered to be an obvious step in the use of the proposed combination. Using latches biased to their

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engaged positions so power is used only when actuating the valve is considered to be an obvious step in the use of the proposed combination in view of the recognized need to manage power consumption. As to claim 17, the Gschwendtner et al valve is manufactured with a slight gap between the fixed and movable members, see column 5, lines 56+, which would inherently allow a slight leak through the valve. It is considered to be an obvious matter of design choice to use the valve without compensating for the gap in an application where a leak is acceptable.

Applicant's remarks have been fully considered but are not deemed to be persuasive. Figure 8 of Schumm, Jr. show an ear formed on a portion of the moveable member adjacent to two openings, which is an integral construction much the same as the instant device. The combination is thus suggested by the Prior Art and the rejection must be maintained.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

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A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Examiner Fox at (703) 308-2595 or [John.Fox@uspto.gov](mailto:John.Fox@uspto.gov). Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0861. The fax number for TC 3700 is 703-872-9302. For responses after final the fax number is 703-872-9303. The Supervisory Primary Examiner for Art Unit 3753 is John Rivell who can be reached at (703) 308-2599 or at [John.Rivell@uspto.gov](mailto:John.Rivell@uspto.gov).

Serial Number: 10/048082

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JOHN FOX  
PRIMARY EXAMINER  
ART UNIT 3753

jcf  
February 7, 2004